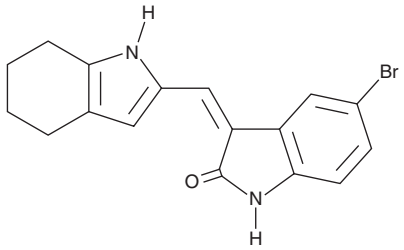
PRODUCT INFORMATION

VEGFR2 Kinase Inhibitor II

Item No. 17544

CAS Registry No.: 288144-20-7
Formal Name: (3Z)-5-bromo-1,3-dihydro-3-[(4,5,6,7-tetrahydro-1H-indol-2-yl) methylene]-2H-indol-2-one
MF: $C_{17}H_{15}BrN_2O$
FW: 343.2
Purity: ≥95%
UV/Vis.: λ_{max}: 218, 282, 446 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

VEGFR2 kinase inhibitor II is supplied as a crystalline solid. A stock solution may be made by dissolving the VEGFR2 kinase inhibitor II in the solvent of choice, which should be purged with an inert gas. VEGFR2 kinase inhibitor II is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of VEGFR2 kinase inhibitor II in these solvents is approximately 10 and 20 mg/ml, respectively.

VEGFR2 kinase inhibitor II is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Vascular endothelial growth factor receptor 2 (VEGFR2, also known as KDR and FLK1) is a receptor tyrosine kinase that regulates angiogenesis, vascular development, and embryonic hematopoiesis in response to VEGF isoforms A, C, and D. VEGFR2 kinase inhibitor II is a reversible, cell-permeable inhibitor of VEGFR2's kinase activity (IC_{50} = 70 nM).[1] It less potently inhibits the platelet-derived growth factor receptor β (PDGFRβ; IC_{50} = 920 nM) and related receptor and non-receptor tyrosine kinases.[1] VEGFR2 kinase inhibitor II blocks the growth of human umbilical vein endothelial cells stimulated with either VEGF or PDGF (IC_{50}s = 110 nM and 2 µM, respectively).[1]

Reference

1. Sun, L., Tran, N., Liang, C., *et al.* Identification of substituted 3-[(4,5,6,7-tetrahydro-1H-indol-2-yl) methylene]-1,3-dihydroindol-2-ones as growth factor receptor inhibitors for VEGF-R2 (Flk-1/KDR), FGF-R1, and PDGF-Rβ tyrosine kinases. *J. Med. Chem.* **43(14)**, 2655-2663 (2000).

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